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(74) Agent: GROETKEN, Troy, A.; McANDREWS, HELD & MALLOY LTD., 34th Floor, 500 West Madison Street, Chicago, IL 60661 (US).

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(71) Applicant (*for all designated States except US*): STEPAN COMPANY [US/US]; 22 West Frontage Road, Northfield, IL 60093 (US).

(72) Inventors; and

(75) Inventors/Applicants (*for US only*): RONGIONE, Joseph, C. [US/US]; 53 Second St., Highlands, NJ 07732 (US). GALANTE, Jenifer, Heydinger [US/US]; 16 Hopper Street, Oakland, NJ 07436 (US). CLAUSS, Steven, L. [US/US]; 134 South 7th Avenue, Manville, NJ 08835 (US). BERNHARDT, Randal, J. [US/US]; 39771 N. Wittenburg Dr., Antioch, IL 60002 (US). XAYARIBOUN, Phouvieng [US/US]; 804 Gardiner Court, North Aurora, IL 60542 (US).

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(54) Title: PRODUCTION AND PURIFICATION OF ESTERS OF CONJUGATED LINOLEIC ACIDS

(57) **Abstract:** A process to refine esters of conjugated linoleic acids via distillation in a single or multi-pass distillation operation is provided. Thermal rearrangement of conjugated linoleic acid components during distillation is prevented or reduced by the use of a low residence time and/or reduced pressure distillation apparatus. A process to produce refined esters of conjugated linoleic acids is also provided. The process transesterifies a linoleic acid-containing oil to generate an alkyl ester composition which further undergoes isomerization at a temperatures typically between about 90-140 °C to form an ester stream containing conjugated linoleic acid esters, which is then distilled to obtain the refined esters of conjugated linoleic acids. The transesterification and isomerization steps can be performed in one reaction vessel without an intervening distillation step. The transesterification and isomerization steps can occur concurrently in a continuous reaction system using a dual reaction zone apparatus. Refined ester compositions produced by the processes and enriched in desirable conjugated linoleic acid isomers are also contemplated.